

CAMEO Chemicals

Searching the Database—Smartphone App

Governor's Office of Emergency Services (CalOES)
California Specialized Training Institute (CSTI)
Hazardous Materials Section

Instructions

Each page has a photo of some container, truck, railcar, drum etc. that contains something hazardous. Each will have enough information for you to identify the material involved.

Search the CAMEO Chemicals app to find what substance in is the container shown. Write down you search criteria and answers in the space provided. List the fields you searched and the information you searched for in the space marked "Search Criteria". Example: Name contains "dieforsuranol" and Label contains "flammable".

The next page will show suggested search criteria and will tell you what is most likely in the container.

You may have multiple answers. This may or may not be a bad thing. You will have to evaluate the search results to figure out what the container most likely has in it.



Identify the substance in the white tank.

Search Criteria:

Result(s)

This is located at a water treatment plant. Does that match the information in CAMEO Chemicals?

Suggested Answer(s)

Search criteria:

UN/NA Number starts with "17"

NFPA 704: Health (Blue) equals "3"

Name contains "pochlo"

Results:

"Calcium Hypochlorite"

"Calcium Hypochlorite Mixture, Dry, With More Than 39% Available Chlorine (8.8% Available Oxygen)"

If you were familiar with the facility where this tank is located, you could most likely accurately guess what the material is.

Extra Credit

This is located at a water treatment plant. Does that match the information in the CAMEO Chemicals?

Yes. General Information: "Used in water purification..."



Identify the substance in drum.

Search Criteria:

Result(s)

Suggested Answer(s)

Search criteria:

UN/NA Number contains "1245"

The last two digits on the UN/NA aren't distinct. It appears to be "15" but you can't be sure. If you search for "1215" and the name you don't find anything. If you use the criteria above then you'll find the substance. In this case the UN/NA number is actually 1245. If you blow the picture up to about 500% then you'll see the "4" in the number.

Name contains "methyl isobutyl ke"

Results:

"Methyl Isobutyl Ketone"

There is only one substance with the UN number 1245. If you search for "1215" the database tells you it matches 0 datasheets.

Figure 1. Sample Pesticide Label.

RESTRICTED USE PESTICIDE
 Due to very high acute toxicity to Humans and Birds.
 For retail sale to and use only by certified applicators or persons under the direct supervision of a certified applicator, and only for those uses covered by the certified applicator certification.

GALACTICARB 15G

Aldicarb Granular Pesticide

<p>For control of certain insects on trees, and some shrubs</p> <p>ACTIVE INGREDIENTS: Aldicarb (2-methyl-2-methylthio) 15%</p> <p>Related to certain components: 2%</p> <p>INERT INGREDIENTS: 83%</p> <p>TOTAL: 100%</p> <p>EPA Reg. No. 150773-213 EPA Est. No. 150773-TX-01</p> <p style="text-align: center;">NET WEIGHT 50 POUNDS Formulated for GALAXY CHEMICAL CORP. Bains Pond, TX 79715</p> <hr/> <p style="text-align: center;">KEEP OUT OF REACH OF CHILDREN DANGER—POISON</p> <p>PEDIGRO</p> <p>PRECAUCION AL USUARIO: Si usted no lee ingles, no use este producto hasta que la etiqueta haya sido explicada completamente.</p> <p>TRANSLATION TO THE USER: If you cannot read English, do not use this product until the label has been fully explained to you.</p> <p>For MEDICAL and TRANSPORTATION Emergencies ONLY Call 24 Hours A Day 1-800-465-5141 For Product Use Information Call 1-800-465-9440</p> <p>STATEMENT OF PRACTICAL TREATMENT</p> <p>IF SWALLOWED: Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger. Do not induce vomiting or give any thing orally to an unconscious or comatose person. Call a physician and follow General Advice.</p> <p>IF IN EYES: Flush eyes with plenty of water and get medical attention.</p> <p>IF ON SKIN: Wash thoroughly with soap and water. Remove contaminated clothing and wash before reuse.</p> <p>IF INHALED: Call a physician and follow General Advice.</p> <p>GENERAL: Contact a physician immediately in all cases of suspected poisoning. Insect may be produced rapidly following overexposure to GALACTICARB Aldicarb. If breathing stops, establish an airway and provide oxygen. Make certain to remove all sources of continuing contamination. Remove clothing and wash skin and hair immediately with large amounts of water. Transport the patient to a physician or hospital immediately and BLOW A COPY OF THE LABEL TO THE PHYSICIAN. If poisoning is suspected in animals contact a veterinarian.</p> <p>NOTE TO PHYSICIAN</p> <p>GALACTICARB Aldicarb is a methyl carbamate insecticide which is a cholinesterase inhibitor. Overexposure to this substance may cause toxic signs and symptoms due to stimulation of the cholinergic nervous system. These effects of overexposure are spontaneous and rapidly reversible. Cholinergic may be used if this product has been swallowed. GALACTICARB Aldicarb poisoning may occur rapidly after ingestion and prompt removal of stomach contents as indicated. Specific treatment consists of the administration of parenteral atropine sulfate. Caution should be exercised to prevent over-atropinization. Mild cases may be given 1 to 2 mg intramuscularly every 10 minutes until full atropinization has been achieved and repeated thereafter whenever symptoms reappear. Severe cases should be given 2 to 4 mg intravenously every 10 minutes until the patient is fully atropinized, then intramuscularly every 30 to 60 minutes as needed to maintain the effect for at least 12 hours. Dosages for children should be appropriately reduced. Complete recovery from overexposure is to be expected within 24 hours. Narcotics and other sedatives should not be used. Further drugs such as pyridine-2-adoxime methiodide are NOT recommended unless organophosphate intoxication is also suspected. To aid in confirmation of diagnosis, urine samples must be</p>	<p>obtained within 24 hours of exposure and immediately frozen. Analyses will be arranged by Galaxy Chemical Corporation. Consultation on therapy can be obtained at all hours by calling the Galaxy emergency number 1-800-465-5141.</p> <p>PRECAUTIONARY STATEMENTS</p> <p>DANGER:</p> <p>HAZARDS TO HUMANS AND DOMESTIC ANIMALS FATAL IF SWALLOWED. Causes cholinesterase inhibition. May be fatal or harmful by skin or eye contact or by breathing dust. Rapidly absorbed through skin or eyes. Do not get it on skin or in eyes. Do not breathe dust. Keep away from domestic animals.</p> <p>Wear long sleeved clothing, full-length trousers, head coverings, and protective gloves when handling. Always stand up wind from hopper when loading. Wash hands and face before eating, drinking, or using tobacco. Bathe at the end of work day, washing entire body and hair with soap and water. Change clothing daily. Wash contaminated clothing in strong washing soda solution and rinse thoroughly before reusing.</p> <p>PHYSICAL AND CHEMICAL HAZARDS Fire hazard when used with metal feed wheels or augers. Do not use with granular applicators which have metal gear teeth or augers.</p> <p>SIGNS AND SYMPTOMS OF OVEREXPOSURE: Salivation, Muscle tremor, Nausea, Watery eyes, Difficulty breathing, Vomiting, Pinpoint eye pupils, Excessive sweating, Blurred vision, Abdominal cramps, Weakness, Headache.</p> <p>In severe cases, convulsions, unconsciousness and respiratory failure may occur.</p> <p>ANTIDOTE STATEMENT ATROPINE SULFATE IS HIGHLY EFFECTIVE AS AN ANTIDOTE. See NOTE TO PHYSICIAN.</p> <p>ENVIRONMENTAL HAZARDS Aldicarb residues may move into shallow groundwater under certain conditions. The appended Environmental Precautions Booklet should be read and understood prior to making applications. If there are any questions, contact Galaxy Chemical Corp. at 1-800-465-9440.</p> <p>TOXIC TO FISH, BIRDS, AND WILD LIFE: This product is toxic to fish, bees, aquatic invertebrates and other wildlife. Risk feeding on exposed plants or tissues may be high. Care of incorporation granules in soil areas. Runoff from treated areas may be injurious to fish in neighboring areas. Do not apply directly to water or wet areas. Do not contaminate water when disposing of equipment wash-water. Apply this product only as directed on the label.</p> <p>GENERAL DIRECTIONS FOR USE It is a violation of Federal law to use this product in a manner not specified on the label.</p> <p>STORAGE & DISPOSAL Store away from children and away from food. Do not store in or near a living space.</p> <p>PESTICIDE DISPOSAL Do not contaminate water, food or feed by storage or disposal. Open equipment is prohibited. Pesticide waste are subject to regulation. The proper disposal of these wastes is a violation of Federal law.</p> <p>CONTAINER DISPOSAL Completely empty and clean applicable equipment. The disposal of empty container is a primary responsibility of the user, or it should be done by the user and local authorities, by open burning. If container is burned, stay away from fire and do not breathe or contact smoke.</p>
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Identify the substance this label describes.

Search Criteria:

Result(s)

Suggested Answer(s)

Search criteria:

Name contains "aldicarb"

If you search for Name contains "Galactcarb 15G" you won't find anything. This is common with pesticides. Their trade names are often not in CAMEO. If you look closely at the label you will see "Aldicarb Granular Pesticide" under the trade name. You have to search for "Aldicarb" only since "Granular Pesticide" isn't in CAMEO Chemicals.

The label lists "Active Ingredients" but it's difficult to make out the words. The name "Aldicarb" is visible but the words after it aren't.

You may have to perform multiple variations of a search to find a substance. If you torture the database long enough it will tell you what you want to know.

Results:

"Aldicarb"

The General Description on the Datasheet says: "Used as an insecticide, acaricide, and nematocide." That is consistent with the label stating this material is a pesticide.

Two other substances

Neither has the name "aldicarb" by itself. Two are solids and one is a liquid. On the other hand, both are pesticides. The general hazards would be similar.



Is this product properly placarded?

Search Criteria:

Result(s)

Suggested Answer(s)

Search criteria:

UN/NA Number contains "1714"

Results:

Zinc Phosphide. No, it's not properly placarded.

The datasheet for this substance says it should have the following DOT labels: DANGEROUS WHEN WET & POISON. The hazard classes on the placards are correct (6 & 4). The placard with the UN/NA number has a "4" at the bottom, however, it is colored red and has the symbol for a Flammable Liquid placard. A Flammable Liquid placard should have a "3" in the bottom corner.



Identify the substance in this intermodal container.

Search Criteria:

Result(s)

Suggested Answer(s)

Search criteria:

UN/NA Number contains "1649"

DOT Label contains (not "equals") "Flammable"

UN/NA Number contains (not "equals") "Poison" (not "Toxic")

Results:

Four substances.

The name of the product is on the side of the tank but it's obscured by the wire rope tying the container down. It appears to say "Motor Fuel" and there are indistinct words below. That would help you narrow down the search.

The tank has a "Marine Pollutant" IMO marking. That isn't in the CAMEO database. You can't search for something that isn't in there.

Since you can't clearly see the name on the side of the tank you can't narrow down the search to less than four substances. In this case that's no big deal since all four are very similar products.



Identify the substance in this trailer.

Search Criteria:

Result(s)

Suggested Answer(s)

Search criteria:

UN/NA Number contains "2448"

Results:

Molten Sulfur.

The tank has a "Hot" marking. That isn't in the CAMEO database. If you include that in your search you won't find anything. (The "Hot" marking technically isn't a DOT placard, it's a DOT "Marking" even though it looks like a placard.)

The General Description field will often have subjective terms such as colors and odors. In this case that really doesn't help since there are over 1,000 substances in the database that have the word "yellow" in the general description. It would be a waste of time searching for that.

In this case if you keep it simple you find the right product.



Identify the substance in these drums.

Search Criteria:

Result(s)

Suggested Answer(s)

Search criteria:

Name contains: "PETN"

DOT Hazard Label contains: "Explosive"

Results:

"Pentaerythrite Tetranitrate"

Alternate Chemical Names: "PETN"

The material in the drums is most likely this stuff. The drums appear to be made of fiberboard so the material is probably not the material below which is a "thick slurry of white crystals" (as stated on the CAMEO Datasheet).

"Pentaerythrite Tetranitrate, [Wet With \geq 25 % Water Or Desensitized With \geq 15 % Phlegmatizer]"

Alternate Chemical Names: "PETN"

Most likely answer: "Pentaerythrite Tetranitrate"

If you know what PETN is then this is easy. If you don't what it is then you have to figure out what to search for. Searching for the letters "UEE" will get you nowhere. The DOT Labels are written in Spanish. If you search for DOT Label contains "Explosivo" you won't find anything. In the CAMEO Chemicals database all of the DOT Labels are in English.

DOT divides explosive substances into several divisions. DOT labels will show the division. In this case the division is visible but barely legible.

In this case finding two products is no big deal. Both have the same major hazard. They both go bang.



Identify the substance in the white bottle that has a blue cap.

Search Criteria:

Result(s)

Suggested Answer(s)

Search criteria:

Name contains: "naphthol blue black"

Molecular Formula contains? (Not legible?)

Results:

"C.I. ACID BLACK 1"

The datasheet says this stuff is a granular solid. That matches the container. The datasheet doesn't say what this stuff is used for. That would be useful in trying to figure out if the CAMEO search results correlate with the container shape and the location of the bottle. If you look further on the internet you find out that this stuff is used as a stain in laboratories.

Other Comments

The chemical formula on the bottle and the formula on the datasheet don't match. This is a common problem with CAMEO. If you tried to search for the formula you wouldn't find this product. Searching for formulas in CAMEO is never easy.

Also, the formula is difficult to see on this bottle. It would be even more difficult to see if you're wearing an SCBA.

Some of the information on the label is written in German. The original version of CAMEO contained foreign spellings. They took that out several versions ago.



Identify the substance in these drums.

Search Criteria:

Result(s)

Suggested Answer(s)

Search criteria:

Name contains: "Succinic Acid"

Results:

"Succinic Acid"

The "X" in the orange box is a pictogram used in the European Union. It will be replaced under the GHS. That pictogram indicates the material is an irritant but the CAMEO database doesn't have that information. The database has information on DOT label but not GHS or EU markings.

Searching for "Succinic Acid" will find 14 substances. They have variations of the name "Succinic Acid" in the Alternate Chemical Names field but only one has "Succinic Acid" in the name field. Some are liquids. They most likely wouldn't be in a container like the one shown.

Most likely answer: "Succinic Acid"

The material in the drums is most likely this stuff. The drums appear to be made of fiberboard so the material is probably not wet. This material is also certified as Kosher. That would indicate it's a food additive. Further investigation on the internet would show this is true (it's used as a sweetener).

How often do you run across hazardous materials that are Kosher?